

OIL ANALYSIS REPORT



ED OELTJEN DANIEL/502899 VOLVO PENTA A444552 - PORT DIESEL ENGINE

Sample No: VPA061947
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA061947	VPA055432	VPA048247	---
Sample Date	15 Apr 2024	27 Mar 2023	29 Mar 2022	---
Machine Hours	727	681	617	---
Oil Hours	0	87	0	---
Oil Changed	Changed	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	13.5	13.6	13.7	---
Base Number (BN)	mg KOH/g	9.9	9.9	10.5	---
Oxidation (PA)	%	60	60	68	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.5	0.5	0.8	---
Nitration (PA)	%	58	59	71	---
Sulfation (PA)	%	56	57	63	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	13	12	16	---
Sodium	ppm	2	3	0	---
Potassium	ppm	4	3	4	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

WEAR METALS

Iron	ppm	74	67	74	---
Copper	ppm	13	13	21	---
Lead	ppm	1	1	1	---
Tin	ppm	1	1	2	---
Aluminum	ppm	6	6	6	---
Chromium	ppm	4	4	4	---
Molybdenum	ppm	59	60	64	---
Nickel	ppm	3	3	0	---
Titanium	ppm	<1	0	0	---
Silver	ppm	<1	2	<1	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	<1	<1	0	---

ADDITIVES

Calcium	ppm	1079	1070	1127	---
Magnesium	ppm	943	934	992	---
Zinc	ppm	1267	1236	1323	---
Phosphorus	ppm	1081	1038	1103	---
Barium	ppm	0	0	0	---
Boron	ppm	2	0	2	---

Depot: VP794951
Unique No: 10989447
Signed: Don Baldrige
Report Date: 23 Apr 2024

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GRAPHS

